

## SIERRA 10/20/12

**Aircraft:**

[SIERRA](#) ([See full schedule](#))

**Flight Number:**

77

**Payload Configuration:**

Galileo HSI

**Nav Data Collected:**

No

**Total Flight Time:**

3.4 hours

**Submitted by:**

Mark Sumich on 10/21/12

**Flight Segments:**

|                           |  |                |                  |
|---------------------------|--|----------------|------------------|
| <b>From:</b>              | NQX  | <b>To:</b>     | NQX              |
| <b>Start:</b>             | 10/20/12 11:53 Z   | <b>Finish:</b> | 10/20/12 15:12 Z |
| <b>Flight Time:</b>       | 3.4 hours  |                |                  |
| <b>Log Number:</b>        | <a href="#">12R018</a>   | <b>PI:</b>     | Stanley Herwitz  |
| <b>Funding Source:</b>    | Bruce Tagg - NASA - SMD - ESD Airborne Science Program   |                |                  |
| <b>Purpose of Flight:</b> | Science  |                |                  |
| <b>Comments:</b>          | It was a clear and calm morning and three each seagrass and patch reef polygons were completed. The GCS operator varied several autopilot tuning parameters in an attempt to reduce the pitch variations of the aircraft and improve data quality. Not much difference was noted and the team should upgrade to the latest autopilot software and fully tune the autopilot at the next opportunity. The process is not well described in the company literature, so it will take some investigation. After landing and during taxi back using the 2.4 GHz RC link, the right ruddervator began to operate intermittently and completely failed by the time the aircraft reached the hangar. Operation on the 900 MHz link was normal. Later the ruddervator would work normally and further ground testing could not duplicate the failure. The 2.4 GHz RC link is essential for takeoff and landing and the aircraft could not be flown on a single ruddervator as that would result in excessive pitch/yaw coupling. Consequently, the team is standing down and this deployment is concluded with a total of 12 seagrass and 6 patch reef polygons flown. |                |                  |

**Flight Hour Summary:**

|   | 12R018 | 13R006 |
|---|--------|--------|
| <b>Flight Hours Approved in SOFRS</b>   | 192    |        |
| <b>Flight Hours Previously Approved</b> |        | 175.73 |
| <b>Total Used</b>                       | 16.27  | 0      |
| <b>Total Remaining</b>                  |        | 175.73 |

**Source URL:** [https://airbornescience.nasa.gov/flight\\_reports/SIERRA\\_10\\_20\\_12](https://airbornescience.nasa.gov/flight_reports/SIERRA_10_20_12)

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Page Editor: Erin Justice

NASA Official: Bruce A. Tagg

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*Flight Reports began being entered into this system as of 2012 flights. If there were flights flown under an earlier log number the flight reports are not available online.*

#### 12R018 Flight Reports

| Date                     | Flt # | Purpose of Flight | Duration | Running Total | Hours Remaining |
|--------------------------|-------|-------------------|----------|---------------|-----------------|
| <a href="#">11/15/11</a> | 62    | Check             | 0.75     | 0.75          | 191.25          |
| <a href="#">11/15/11</a> | 63    | Check             | 1.12     | 1.87          | 190.13          |
| <a href="#">08/24/12</a> | 66    | Check             | 1.2      | 3.07          | 188.93          |
| <a href="#">10/13/12</a> | 72    | Check             | 0.9      | 3.97          | 188.03          |
| <a href="#">10/14/12</a> | 73    | Science           | 3        | 6.97          | 185.03          |
| <a href="#">10/17/12</a> | 74    | Check             | 0.5      | 7.47          | 184.53          |
| <a href="#">10/17/12</a> | 75    | Science           | 4.2      | 11.67         | 180.33          |
| <a href="#">10/18/12</a> | 76    | Science           | 1.2      | 12.87         | 179.13          |
| <a href="#">10/20/12</a> | 77    | Science           | 3.4      | 16.27         | 175.73          |